

THE RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF FISH AND GAME
MARINE RESOURCES REGION

REPORT FOR THE MONTH OF OCTOBER 1970

We lost a superb biologist-diver, scientist, leader, friend and colleague when Charles H. Turner died on October 27, 1970.

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A pollution case having far reaching implications was completed during the month of October. This case began in October 1969 when marine wardens cited the 10,413 gross ton freighter SS BOURNEMOUTH for pollution of State waters by fuel oil. The Captain of the Liberian vessel denied the charge and the vessel was seized by U. S. Marshals after the Attorney General brought libel proceedings against the ship. In November, 1969 the owners challenged the lien proceedings but the United States District Court held that there was jurisdiction and the lien would stand. The vessel was bonded for \$10,000 to pay for clean-up costs undertaken by the Department. After a court trial on facts in October, 1970 the court found in favor of the State. Therefore, the owners will pay for clean-up and court costs. The owners pled nolo contendere to pollution charges on October 16, 1970 in State court and were fined \$500 suspended for one year on conditions of no further violations.

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Reports of dead and dying sea lions were continuous throughout the reporting period. Most of the reports were from areas along the San Mateo-Santa Cruz County coast. It appears that many of these reports were regarding the same animal which tends to make the situation appear much more severe than it probably is. The great concern by the general public for wildlife, is also leading to more reports than we normally receive. Our investigation of a cause of the die-off is continuing.

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Sea water began flowing into the Granite Canyon Marine Culture Laboratory on October 1. The filtered sea water system was activated on October 14. A few minor problems were encountered in the two sea water systems but these were corrected.

Gravity flow from the main 20,000 gallon storage tank (120 feet above sea level) to the laboratory level (100 feet above sea level) provides an excellent head of water through both water systems.

We plan to initiate research on the red abalone prior to November 1.

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Anchovy reduction landings are nearly 50% ahead of last year at this time. The combination of excellent weather and availability of fish have kept the 5 local reduction plants running at near capacity throughout the season.

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We have released over 1700 tagged bonito since August. Tag returns now number 35 with more coming in every month.

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1. WILDLIFE PROTECTION

A. Canneries

To date the anchovy reduction fishery has enjoyed excellent success, the catch being limited only by the capacity of the reduction plants. Additionally, jack mackerel catches at Cortez Bank have been good on any occasion when weather permits.

Tuna vessels fishing in the quota area of the eastern Pacific are returning to port in increasing numbers generally with less than capacity loads. Several boats are tying up and will not sail until 1971.

B. Market Fish

Broadbill fishing remains remarkably good with large amounts of fish being delivered to markets from Santa Barbara to San Diego. Elsewhere in the state landings of fish for the fresh fish markets are normal for this time of year.

C. Sportfish

Sportfishing remains excellent in the San Diego area and fairly good in the Long Beach-Ventura area. In the central area of the State rockfish catches are good and salmon catches fair to good with some salmon showing up in San Francisco Bay.

Sportfishing off of northern California beaches was good to excellent and the first clam tides of the fall and winter series produced excellent clamming for a relatively small number of persons.

D. Weather

Weather conditions were excellent in the southern and central portion of the State during most of the month. In the northern section the latter stages of the period brought the more normal type of weather, mainly wind and rain.

E. Law Enforcement

Reports of salmon netting in northern California rivers was prevalent and marine wardens assisted the land patrol forces in attempting to alleviate this situation. In the central part of the State reports of illegal striped bass and closed season crabs in markets in the San Francisco area demanded increased surveillance. In the Princeton-Half Moon Bay area an influx of divers from the Morro Bay area has brought about increased reports of abalone violations. The usual complaint regarding undersized lobsters and trap robbing are being received by southern California wardens at an even greater rate than in the past. A number of arrests have been made for trap robbing as well as arrests and seizures of substantial amounts of lobster for violation of the size limits.

F. Pollution

Fourteen investigations of oil pollution were conducted through the reporting period. Nine of these were the result of spills from merchant vessels; two from U.S. Navy ships and three from industrial shore-based facilities. Four citations are presently pending and there were ten

successful prosecutions. A pollution case having far reaching implications was completed during the month of October. This case began in October 1969 when marine wardens cited the 10,413 gross ton freighter SS BOURNEMOUTH for pollution of State waters by fuel oil. The Captain of the Liberian vessel denied the charge and the vessel was seized by U.S. Marshals after the Attorney General brought libel proceedings against the ship. In November, 1969 the owners challenged the lien proceedings but the United States District Court held that there was jurisdiction and the lien would stand. The vessel was bonded for \$10,000 to pay for clean-up costs undertaken by the Department. After a court trial on facts in October, 1970 the court found in favor of the State. Therefore, the owners will pay for clean-up and court costs. The owners pled nolo contendere to pollution charges on October 16, 1970 in State court and were fined \$500 suspended for one year on conditions of no further violations.

G. Miscellaneous

Reports of dead and dying sea lions were continuous throughout the reporting period. Most of the reports were from areas along the San Mateo-Santa Cruz County coast. It appears that many of these reports were regarding the same animal which tends to make the situation appear much more severe than it probably is. The great concern by the general public for wildlife is also leading to more reports than we normally receive. Our investigation of a cause of the die-off is continuing.

2. BOTTOMFISH

A. Fishery

Flatfish: Dover sole continued to be the primary objective of the Eureka and Crescent City fleets. Good catches of Dover sole were complemented with moderate catches of English, petrale, and rex sole. Fishing was concentrated on grounds near port as inclement weather restricted trawling activities. Trawlers from Fort Bragg, Bodega Bay and San Francisco fished on good concentrations of Dover and petrale sole off Point Arena and San Francisco. Flatfish landings were light at Monterey and Santa Barbara. Morro Bay and Avila vessels had good petrale fishing off Point Sal.

Roundfish: Sablefish and channel rockfish were the predominant species in landings in northern California. Rockfish catches declined for central California fishermen during October.

B. Research

Flatfish: Market sampling of the catch for age and size composition continued at major ports. Age determinations of the large backlog of age material were continued.

During the month 25 Dover sole, tagged off Eureka in 1969, and a petrale sole, released off Bodega Head in 1964, were recovered and processed. A tagged Pacific halibut was recovered off Eureka in 58 fathoms by the trawler FRANKLIN.

A six-day NAUTILUS cruise in the Gulf of the Farallones, for juvenile English, petrale, and Dover sole was completed during the month.

Roundfish: The last of a year's series of longline cruises was completed during the month and the cruise's data are now being analyzed.

3. SHELLFISH

A. Fishery

Crab: Season closed.

Shrimp: Ocean shrimp landings in Area C (Morro Bay-Avila) total 66,285 pounds as of the end of September. No effort has been reported since then. The average catch per hour, to date, is 854 pounds; a record for the area.

No effort has been reported in Area B-1 (Fort Bragg), the only other open area.

B. Research

Crab: The Status Report for the 1969-70 season was written and sent to Oregon State Fisheries biologist Dale Snow for inclusion in the Pacific Marine Fisheries Commission report.

Growth studies continued on crab samples obtained at Pt. Molate near Richmond. Sampling will continue in this area as well as from other areas in San Pablo Bay.

Project personnel spent much of the month reviewing the literature.

At Eureka work continued on the crab bulletin. The sections on food habits and relative abundance have been completed, and the section on migrations is now being written.

Catch and effort data obtained through interviews of crab fishermen during the 1969-70 season has been summarized by month and by area.

Shrimp: At Menlo Park, seven ocean shrimp samples from Area C (Avila) were processed for weight, sex, and year class determinations. Heads-on counts per pound averaged 54 with a range of 49 to 60 per pound. Year class composition was 22.5 percent one-year-olds, 65.9 percent two-year-old and 11.6 percent three-year-old shrimp.

With the assistance of wardens Fred Kemp, Ernie Farmer and the patrol boat TUNA, samples of bay shrimp were obtained from four vessels off Petaluma Creek in San Pablo Bay. The fishermen were also interviewed in regard to catch and gear used.

Five samples of bay shrimp were also obtained with the aid of a fisherman in Alviso Slough. Sex composition was 37 percent males and 63 percent females. Heads-on counts per pound averaged 361 with a range of 328 to 388 per pound.

At Eureka only one hake sample was obtained, due to project personnel being on vacation and some bad weather. An average of 2.0 juvenile shrimp was found in those hake stomachs containing food.

Length-frequency data from the 1970 market samples from Area A is being summarized.

Oysters and Clams: Two samples of 50 Eastern oysters each from Redwood City were given to State Public Health for depuration studies at Tomales Bay.

Assistance was given State Public Health in obtaining clam samples off San Leandro and Oakland airport. Good populations of soft shell and Japanese littleneck clams exist off San Leandro and a good native oyster set is evident in the rocks near the Oakland airport.

A total of 5,000 Japanese littleneck clams were planted near Tom's Point on Tomales Bay. These clams which measured about 2-5 mm in size were obtained from Pacific Mariculture, Inc. at Pigeon Point. Observations of growth and survival will be made. The clams were placed on the bottom and wire mesh was put on top of them in an effort to prevent destruction by stingrays and other predators. Another plant of 5,000 clams is slated for the week of October 25.

4. SHELLFISH LABORATORY OPERATIONS (Bartlett Project M64R6)

Sea water began flowing into the laboratory on October 1. The filtered sea water system was activated on October 14. A few minor problems were encountered in the two sea water systems but these were corrected.

Gravity flow from the main 20,000 gallon storage tank (120 feet above sea level) to the laboratory level (100 feet above sea level) provides an excellent head of water through both water systems. It had been questionable as to whether a pump would be necessary to push water through the sand filters in order to obtain sufficient filtered water pressure in the laboratory.

We plan to initiate research on the red abalone prior to November 1.

Paul Wild separated from the project on October 1 to head-up the sea otter project. He has been vital to the successful development of the culture laboratory and will be missed.

Project members participated in the diving workshop at Tomales Bay on October 6-8.

5. CYSTER DISEASE AND MORTALITY STUDY (B.C.F. Contract)

Routine surveillance was carried out in all areas during October. Losses among all experimental populations were low.

Emphasis in the project will change slightly during the next spring and summer. More time will be spent in exploring methods of culturing around the summer mortalities than in finding the precise cause of the mortalities.

The processing and examination of material continues.

The program is on schedule.

6. SEA OTTER

The vacant Associate position was filled with the promotion of Paul Wild, effective October 1, 1970.

Wild assisted in the algal survey of Tomales Bay conducted by Departmental divers on October 6, 7, and 8.

Wild met with Phillipe Costeau on October 19 at Hopkins Marine Station to discuss Departmental sea otter activities and to review recent sea otter movies taken by Costeau and crew in the Monterey-Pacific Grove area.

Project personnel attended the Seventh Annual Conference on Biological Sonar and Diving Mammals held at Stanford Research Institute, Menlo Park on October 23 and 24. Some excellent movie footage on southern sea otter activities and mating behavior was presented by William Bryan (Friends of the Sea Otter) and Judson Vandevere (Hopkins Marine Station).

Cataloging and distribution of sea otter carcasses, pelts and skeletal material for scientific study continues.

Project personnel plan to board Kelco Company's kelp cutter to observe harvesting activities within the Sea Otter Refuge on October 28.

7. ABALONE

Project biologists assisted in the Tomales Bay marine algae survey, October 6-8.

The fall ecological survey at Diablo Canyon was completed. Four intertidal stations, 3 within Diablo Cove and a control station one mile north, were surveyed. Colored photographs were taken at 19 permanent $\frac{1}{4}$ m² quadrats to document the marine algae and exposed invertebrates.

Bull kelp sporophyte counts along the subtidal stations were much lower than during the same period in 1969, although the canopy appeared as dense and extensive. Counts of all emergent stipes were therefore made within the cove and charted within a 2 mile radius to document the abundance of this important alga.

8. PELAGIC FISH

A. Fishery

Landings in tons Species	October		January 1 - October 28		
	1970*	1969	1970*	1969	1959-1968 10-year mean
Anchovy	14,866	15,421	58,400	35,207	7,747
Mackerel, jack	4,226	3,476	17,454	24,378	26,337
Mackerel, Pacific	31	43	291	1,015	10,050
Sardines	-	2	260	44	7,817
Squid	30	35	7,910	8,658	6,547
TOTAL	19,153	18,977	84,315	69,302	58,498

* Estimated. Accumulated landings are revised monthly.

Anchovy: Anchovy reduction landings are nearly 50% ahead of last year at this time. The combination of excellent weather and availability of fish have kept the 5 local reduction plants running at near capacity throughout the season.

There are now 33 boats with reduction permits and 25 of these have landed fish. There were no anchovies landed for reduction north of Point Conception during October.

Mackerel: Jack mackerel landings were up considerably over previous months. Excellent weather has allowed the fleet to fish Cortes Bank where it has enjoyed good success.

Pacific mackerel landings consisted of several small or mixed loads from the local islands.

Squid: Several small landings were made at Monterey.

B. Live Bait

October can be added to the continuing list of months which have been good for the live bait industry.

The seasonal reduction in sport fishing activity has allowed reduced bait fishing schedules. This often can bring problems in relocating catchable concentrations. It particularly is true if the bait is moving and fewer bait haulers are keeping track of daily fish activity. In October, however, anchovies continued to be plentiful and, in most cases, available to bait haulers without a lot of traveling and searching.

Fears of a reduced abundance of bait within the Los Angeles-Long Beach Harbor seem to have relaxed. All bait hauling in the area is within the harbor.

C. Biological Studies of Pelagic Fish

A program for tagging and genetic studies of jack mackerel was submitted to the MRC and was approved for funding in fiscal year 1971-72.

D. Fisheries Resources Sea Survey (M63R)

An anchovy survey of northern Baja California and southern California was completed October 22. Heavy concentrations of large schools in both Baja California and southern California indicated excellent commercial availability. Large extensive concentrations were located in Baja California between Cape Colnett and Todos Santos Island. Extremely good concentrations were also found from Ensenada to Descanso Bay. In southern California large numerous schools were found in San Pedro Channel and off Newport Beach. Less numerous but larger schools were detected in the canyon areas of Santa Monica Bay. A large widespread concentration of small schools was found 15-18 miles northeast of Santa Barbara Island. The few schools located more than 20 miles offshore were larger than those of previous years.

Data Report Number 19 covering 1969 sea survey cruises is nearly ready for printing. A computer run for reproduction into the published report was completed. Computer runs were also made on 1970 data which will enable us to publish this year's data early in 1971. A computer program is under development to summarize acoustic transect data by 20 minute grids of latitude and longitude.

Plans were made for installing a new scientific sounder aboard the ALASKA.

John Sunada, Junior Aquatic Biologist, was appointed October 5 in the Sea Survey Project.

E. Sea Survey Data Analysis

Due to the absence of the program leader, considerable time was spent working with Norm Abramson of ORB, in the development and finalization of a Pelagic Fish Systems Analysis Plan. The plan was submitted to the MRR Manager and Chief, Operations Research Branch.

Work continued on 3 manuscripts still uncompleted and holdovers from the old Mackerel-Sardine project.

9. BIG GAME FISH

A. Albacore

Research

Life History: Migration -- one tagged albacore was returned after nearly 2 months at liberty. It was tagged in the southern fishery during August and was recovered off Pt. Sur in October.

Age and Growth: Age composition samples consisting of 1,000 lengths and 200 scale samples were obtained at Terminal Island canneries. An additional 500 length frequencies were obtained at Moss Landing. Estimates of the age composition to date indicate the fishery consisted of 11% I's, 30% II's, and 59% III's and IV's.

Population Dynamics: Over 100 trip logs were collected during October. These showed an average catch of about 2,000 fish per trip for the month. California landings for 1970 may exceed last year by as much as 25 percent.

Fishery

Sport: The southern California sportfishery was revitalized for a few days during October. San Diego partyboats enjoyed most of this. At Morro Bay, good weather proved an asset and catches were as high as 4 fish per angler.

Commercial: Fair weather and fish concentrations within 90 miles of the coast between Pt. Arguello and Monterey resulted in good catches for most of the fleet. Trollers were more successful than bait boats for most of the month, but improved live-bait fishing was reported during the past few days. When landings are tallied finally, the catch for 1970 will be the highest since 1964.

Miscellaneous: The PMFC albacore status report for California was prepared and then combined with the Oregon and Washington reports. This report will be presented to the Commission at their annual meeting in mid-November.

B. Bluefin Tuna

Research

Population Structure: Work continued on biochemical methods of distinguishing bluefin populations.

Life History: Age and growth -- the age determination of bluefin in the commercial catch for 1970 continued.

Resource Management: Work was started on a manuscript describing the catch localities, the catch, and the catch-effort of the bluefin fishery. Plans are to publish these data in a fishery information series.

Fishery

Commercial: No bluefin were reported caught this month. The total to date of about 4,200 tons makes 1970 the worst season in the last 17 years.

C. Pacific Bonito

Research

Population Structure: Work continued on morphometric and biochemical methods of identifying sub-populations.

Several samples were obtained from areas off Baja California and stored frozen for future study.

Life History: Migration -- a large part of the month was spent tagging aboard the R/V N. B. SCOFIELD. Project personnel returned October 2 from a trip during which numerous sand bass and 378 bonito were tagged off Baja California. The vessel sailed again October 14 for Baja California and returned October 26. During this trip 304 bonito were tagged.

We have released over 1700 tagged bonito since August. Tag returns now number 35 with more coming in every month.

Fishery

Commercial: About 165 tons of bonito were landed at San Pedro this month, with fish in some loads averaging over 15 pounds each.

Commercial fishermen from Crescent City to San Diego reported bonito in their catches this month.

D. Billfish

Fisheries: The striped marlin sportcatch is far below average this year. Many fish are seen but few have been receptive to the lures. On the other hand, commercial broadbill landings are above average. The landings will not reach last years' 500 tons but they should be about 80 percent of that figure. Broadbill angling was successful. About a dozen fish were landed by rod and reelers and many were hooked and lost after battles of several hours.

E. California Yellowtail

Research

Life History: A total of 17 yellowtail were tagged this month.

Education and Public Relations: Scientific conferences -- the staff attended the 21st Annual Tuna Conference at Lake Arrowhead. Jim Phelan gave a talk summarizing the 1970 bluefin tuna fishery and Charles Hooker talked on the 1970 albacore season in California.

10. SPORTFISH

A. Partyboat

Research: Several tagged bass were recovered; growth and migration data were as expected. Partyboat skippers have reported there are fewer seagulls at Fort Bragg and Long Beach, but their opinions on the situation around San Francisco and San Diego seem open to argument. Port Hueneme operators have birds to give away. Approximately 5,400 September partyboat logs have been received to date, appreciably more than normal.

Fishery: The 1970 partyboat catch of key species, accumulated through September compares with the 1969 catch as follows: (nearest 100)

<u>Through September</u>	<u>1970</u>	<u>1969</u>	<u>% variance from 1969</u>
Rockfish	2,171,600	1,493,800	+ 45
Kelp, sand bass	837,400	1,117,000	- 25
Bonito	463,100	963,000	- 48
Barracuda	339,300	277,700	+ 22
Salmon	90,700	95,900	- 6
Yellowtail	71,600	43,700	+ 63
California halibut	25,900	23,500	+ 10
Striped bass	7,800	11,800	- 34
Sturgeon	1,100	1,708	- 36

The rockfish catch is a new all-time record, with 3 months remaining in the year. A total catch of at least 2.5 million rockfish is predicted.

B. Central California Marine Sportfish Survey

Routine partyboat and skiff sampling was conducted from Princeton to Morro Bay.

Kelp growth and kelp cutting studies were continued in the Hopkins Reserve area. Fish transects were run in the cut and uncut sections. About 30 fish were caught, dragged, and released in the study area.

Work was continued on the revised field guide. The key to the Families section was completed this month.

Three days were spent tagging lingcod on board the "SEARCHER" operated for the California Academy of Science.

Miller spent several days on administrative duties at the Monterey office.

11. INSHORE FISHERIES HABITAT EVALUATION AND MONITORING

During the annual diver workshop, October 7-8, project personnel participated in a survey of the marine plants of Tomales Bay. The survey went according to plan. The data will be completed and analyzed and printed for inclusion in the MRR Reference Series.

On October 16, we took several plankton tows in the Los Angeles Yacht Harbor. The harbor water was a milky white with 0.2-0.3 dissolved oxygen and a high sulfide count. A few dead crabs were observed on the

surface of the water. The plankton sample looked normal and did not have whitish zooglea-like masses as it did in the November 1969 through January 1970 white-water condition.

Assistance was given to Marine Patrol in looking for illegally set lobster traps on the inside of Santa Catalina Island. The trip was very successful in that we discovered 11 traps. Five of the traps were new and had just been baited with fresh abalone trimmings.

Project personnel along with Gotshall, Duffy, Ames, and Robert Given (USC Marine Laboratory, Santa Catalina Island) conducted an environmental survey and a check-out dive to 150-foot depths off Ship Rock, Santa Catalina Island. An undescribed species of a sea anemone, *Parazoanthus* was found in abundance from 40-60 feet of water.

SAN ELIJO-SAN DIEGUITO SURVEY (Contract FGS-1451)

The final report is being prepared for printing as a MRR Reference Report.

ENVIRONMENTAL AND BEHAVIORAL STUDIES OF COASTAL SPORT FISHES (DJ-F22R)

Project personnel participated in the annual diver workshop, held at Tomales Bay this year. An extensive inter-and sub-tidal algae survey was completed.

About 50 kelp plants (*Macrocystis*) remain at each of the two transplant sites off Palos Verdes Point. The plants at the 45-foot station were in poor condition, probably due to grazing by the many fishes that have been observed in the area. The plants at the 20-foot station appear healthier; several holdfasts have attached to the substrate. Dense growths of feather boa kelp, *Egregia laevigata* may help reduce grazing pressures at the 20-foot station.

We spent one day assisting Wildlife Protection in locating and destroying illegal lobster traps.

The project leader took two weeks vacation.

12. SPECIAL PROJECTS

A. Southern California

Much of the month was devoted to the evaluation of Army Corps of Engineers Environmental Statements and impact studies, and to Corps permits. Projects involved extended from San Onofre to Bodega Bay.

A flight was made to check on the reports of abnormally large numbers of dead California sea lions being found along the coast from Monterey to the Russian River. Only 13 dead animals were seen; reports had indicated about 30 at that time. An undetermined number of animals had been removed for autopsy, buried or hauled away. The latest figures indicate that about 100 animals have been reported as far north as the Oregon border. Cause of death is thought to be a halmolytic staph infection. California Academy of Sciences, San Francisco, does not know how many reports are duplications.

A number of meetings was attended during the month including a N.O.D. hearing in Santa Barbara on the proposed harbor of refuge at Coho; a meeting with the Corps of Engineers in Los Angeles on a proposed harbor

at Paradise Cove; the Diving Mammal Conference at Menlo Park (Stanford Research Institute); a Nuclear Tower Plant Siting Committee meeting near Point Conception; a meeting with the Environmental Services Branch in Sacramento, and a Corps of Engineers meeting on the San Onofre project in Los Angeles.

Talks were given on sea otters and pinnipeds to the American Cetacean Society and the Palos Verdes Oceanographic Society.

13. MARINE FISHERIES STATISTICS

A. Source Documents

Editing of September cannery receipts, and August shrimp market receipts was completed during October. Work in progress at end of month included August market and trawl receipts and October cannery receipts.

The Marine Sport Catch letters for August and September were compiled and mailed. The striped bass letter was compiled for September and mailed.

Routine delinquent lists for September were prepared and distributed.

Shrimp permits, boat registrations, commercial fishing licenses, logs and receipts for 1968, 1969 and 1970 were pulled, Xeroxed for Deputy Attorney General R. Walston (San Francisco) for an impending court case.

A comparison of bay shrimp logs and receipts for 1970 was completed for Walt Dahlstrom.

Master list changes were made and distributed.

B. Machine Data Processing

Key punched and tabulated 22 reports - annual, monthly and special - including cannery, processor's, salmon, marine sport catch, trawlers, etc.

C. Information

Various special reports were compiled and distributed: pounds of fish for block area 656-657 (Ed Greenhood); pounds of fish for block area 719, 740 (Stan Kabel); 1970 accumulative sardine catch; bait and mussel landings for 1967, 1968, 1969 (R. Kaneen); and planning data (Herb Frey).

Various reports from the machine data processing unit were decoded, distributed and filed.

Prepared and mailed, processors' and cannery reports.

Provided a list of shellfish cultivators for 1970-71 for Leslie Edgerton, Sacramento.

D. Fishery Surveillance

Three bait dealers were contacted to clarify their purchase receipts from fishermen.

Santa Barbara Fisheries bookkeeper was given assistance with new fish tax form.

The purchase order for an abalone weighing scale was finally received and will be delivered to Dick Burge. Work on the abalone conversion weights can be initiated soon.

The remainder of the months field activity was concentrated in contacting bait dealers to obtain opinions and information on proposed sea mussel regulations. Opinions varied considerably from no regulation to complete moratorium for 10 years. A written summary of all this information will be prepared for those concerned.

E. Ecology and Vital Statistics

Progress was limited since Robert Bell was on vacation and certain requested data from NODC has not arrived.

14. VESSELS

Alaska

From the 1st through the 22nd, the vessel conducted an anchovy survey off Baja and southern California. The balance of the month the crew was on C.T.O.

N. B. Scofield

From the 1st through the 2nd, the vessel engaged in sportfish tagging off Coronados Island, upper Baja California Mexico. From the 14th through the 26th, the N. B. SCOFIELD engaged in tagging Pacific bonito off Baja California. The balance of the month the crew was on C.T.O.

Nautilus

On the 10th the vessel sailed from Redwood City for Monterey to conduct a nine (9) day rockfish study.

From the 19th through the 24th the NAUTILUS engaged in bottomfish study off San Francisco.

15. MISCELLANEOUS

A. Meetings, Talks, and Visitors

- | | |
|----------------|--|
| October 5 | -Ebert met with M. P. Albin, the diving officer of Moss Landings Marine Laboratory, to discuss biological aspects of scuba diving. |
| October 5 & 16 | -Leo Pinkas met with Dave Stanton, Deputy Attorney General, Los Angeles, to discuss deposition in Oppen vs Union. |
| October 6 | -Parrish gave a seminar to a group of graduate students at Moss Landing Marine Laboratory on "Hydrogeographic Effects Upon the Distribution of Anchovies and Sablefish in Monterey Bay." |
| October 6-8 | -Wild assisted in MRR algal diving survey of Tomales Bay. |
| October 8 | -Gates, Baxter, Messersmith attended a Sport Commer- |

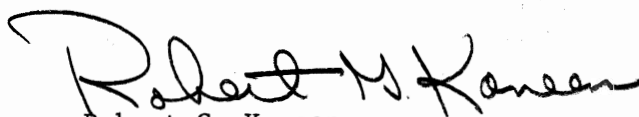
cial Committee meeting at Long Beach; chaired by Larry Cloyd.

- October 13 -Gregory gave a talk on lingcod, cabezon and rockfish to the Richmond Pelicans Skindiving Club.
- October 13 -Wild met with Jud Vandevere of Hopkins Marine Station, William Bryan of Friends of the Sea Otter, and Phillipe Costeau's crew members to evaluate a night observation system on the beach at Hopkins Marine Station.
- October 19 -Wild met with Phillipe Costeau to discuss Departmental sea otter activities and to review Costeau's recent sea otter movies.
- October 20 -Parrish attended a boat and gear committee meeting at Moss Landing.
- October 20 -R. B. Edington, U. S. Food & Drug Administration, call on Marine Fisheries Statistical Unit for boundaries of block area 740.
- October 22 -Ebert gave an illustrated presentation on the development of the culture laboratory at the Principal Officers meeting in Sacramento.
- October 22 -Gates, Ganssle, and Richardson attended MRC meeting in San Francisco.
- October 23 -Robert J. Agers, Jr., Department of Navigation and Ocean Development visited the Marine Fisheries Statistical Unit to obtain sample of boat length and horse power for evaluation of a Decca Navigational Aid System.
- October 23 -Parrish met with Mr. Earl L. Crockett to discuss the feasibility of basing a ten boat fishing fleet at Moss Landing.
- October 23, 24 -Wild and Wilson attended the Seventh Annual Conference on Biological Sonar and Diving Mammals at Stanford Research Institute, Menlo Park.
- October 24 -Ebert gave an illustrated talk, "The status and potential of aquaculture," to a Marine Environmental Teachers' Institute at Tiburon Marine Laboratory.
- October 26 -Jow attended with Gates, Pinkas, and Gotshall a meeting in Eureka to discuss matters of mutual interest with Region 1 personnel.
- October 26 -Doyle Gates, Leo Pinkas, Tom Jow, Dan Gotshall, and Capt. Thompson of MRR met at Eureka with O'Brien, Mac Foster, Capt. Grey, Ned Dolhite, D. La Fauna - Region 1 and L. B. Boydston, Fish Branch, to discuss mutual problems and procedures.

- October 26, 27 -Orcutt and Katkansky attended an oyster mortality meeting sponsored by N.M.F.S. in Portland.
- October 26-27 -Katkansky and Orcutt attended the Steering Committee meeting of the Pacific Coast Oyster Mortality Study in Portland, Oregon.
- October 28 -Ganssle met with the CalCOFI Committee in La Jolla to arrange details of the CalCOFI Conference.

B. Personnel

- October 1 -Joseph A. Peelen, Fish and Game Warden, Sebastopol transferred from Region 3.
- October 1 -Paul W. Wild, Assistant Marine Biologist, Shellfish Laboratory Operations, Monterey, promoted to Associate Marine Biologist, Coastal Fisheries, Sea Otter Project.
- October 5 -Virginia L. McGruder, Clerk Typist II, Marine Fisheries Statistics, Eureka, appointed part-time.
- October 5 -John S. Sunada, Jr. Aquatic Biologist, Fisheries Resources Sea Survey, Long Beach, appointed.
- October 7 -Kathleen O'Rear, Clerk Typist II, Pelagic Fisheries, Long Beach, transferred to Department of Rehabilitation.
- October 8 -John W. Dalzell, Deckhand Fish and Game Boat, Research Vessels, San Pedro, appointed TAU.


Robert G. Kaneen
Acting Manager

MRR-LB/cg
11-5-70/200

WILDLIFE PROTECTION BRANCH MONTHLY REPORT FORM

Region MRR

Fill-In Section

Report for Month of Oct. 1970A. Reserve Warden Activities

1. Number of patrols made by reserve wardens	<u>21</u>
2. Hours worked	<u>181</u>
3. Arrests or citations issued by reserve wardens (Wardens not present)	<u>0</u>
4. Arrest Assists or Citations Issued by Reserve Wardens (Wardens present)	<u>21</u>
5. Personal vehicle miles traveled on patrol	<u>0</u>
6. Personal vehicle miles traveled to and from assignment	<u>638</u>

B. Hunter Safety Training Program

1. Time spent on hunter safety training	<u> </u>
2. Hunter safety instructors contacted	<u> </u>
3. Hunter safety training classes attended	<u> </u>
4. Hunter safety instructor classes attended	<u> </u>

C. Deer Accidentally Killed

1. Road kills by motor vehicles	<u> </u>
2. Kills from other causes (railroads, canals, dogs, etc.)	<u> </u>

D. Arrest Report

Number of persons arrested as compared to same periods last year:

<u>302</u>	<u>295</u>
Current Month	Same Month Last Year
<u>3,633</u>	<u>2896</u>
Total Arrests This Year	Total Same Period Last Year

Remarks - (To explain any marked changes in above totals)

Wildlife Protection Branch Monthly Report - Page 2

Fines paid

\$6,664
Current month

\$8,735
Same month last year

\$81,440.80
Total fines this year

\$66,305.80
Total same period last year

Remarks (To explain any marked changes in above totals)

Jail days served	-
Jail days suspended	-
Cases dismissed	19
Cases in which all of fine was suspended	7
Juvenile cases turned over to juvenile authorities or parents contacted	
Hunting licenses revoked by court	
Hunting licenses suspended by court	
Angling licenses revoked by court	
Angling licenses suspended by court	

Summary: Following is the number of violations prosecuted against type of violation

Hunting no license	Angling no license	231
Waterfowl	No Colo. Riv. Use Stamp.	
Deer	No inland stamp.	
Pheasant	Trout	
Loaded gun in car.	Other inland fish.	
Public shooting area trespass.	Angling more than one rod.	3
Trespass (2016-18)	Clams and shellfish.	23
Resident small game.	Commercial abalone	
Doves.	Commercial lobster	1
Pigeons.	Commercial fish.	11
Bear	Ocean sportfish.	29
Baited pond shooting	Pollution (5650)	1
Protected nongame birds and fully protected birds	Stream obstruction (5948).	
Litter (5652).	Suction dredge (5653).	
	Miscellaneous.	
	Total.	

E. Assistance to Other Law Enforcement Agencies

1. Number of cases filed by Wildlife Protection officers for violation of Penal or other code sections
2. Number of cases filed by Wildlife Protection officers for city or county ordinances
3. Number of cases turned over to federal agencies for filing
4. Number of cases of assistance to other agencies resulting in filing of charges (not included in 1, 2, or 3 above)
5. Number of cases involving felony charges